

D1
movable pick head supported to retrieve a component from said component feed source and place the retrieved component in one of a plurality of alignment orientations including a predetermined fiducial alignment orientation in a plane and another alignment orientation which is 180° from the predetermined fiducial alignment orientation in the plane; and

a fiducial alignment detector comprising a receiver connected to said controller, wherein said controller contains instructions which, when executed by said controller, cause said controller to compare a detected fiducial alignment orientation of the retrieved component with the predetermined fiducial alignment orientation to determine whether the retrieved component is in said predetermined fiducial alignment orientation.

D2
44. (Thrice Amended) A component transfer apparatus for transferring a component having at least two sides that are substantially parallel to each other and that each have an equivalent number of leads protruding therefrom, said apparatus comprising:

a pick and place machine having a component feed source and a movable pick head having access to said component feed source, said moveable pick head supported to retrieve a component from said component feed source and place the retrieved component in one of a plurality of alignment orientations including a predetermined fiducial alignment orientation in a plane and another alignment orientation which is 180° from the predetermined fiducial alignment orientation in the plane;

a fiducial alignment detector directed toward said component feed source; and a controller coupled to said fiducial alignment detector and containing instructions which, when executed by said controller, cause said controller to compare a detected fiducial alignment orientation of the retrieved component with the predetermined fiducial alignment orientation to determine whether the retrieved component is in said predetermined fiducial alignment orientation.

D3
61. (Thrice Amended) A component transfer apparatus for transferring a component having at least two sides that are substantially parallel to each other and that each have an equivalent number of leads protruding therefrom, said apparatus comprising:

D
a pick and place machine having a component feed source and a movable pick head having access to said component feed source, said moveable pick head supported to retrieve ~~said~~ a component from said component feed source and place the retrieved component in one of a plurality of alignment orientations including a predetermined fiducial alignment orientation in a plane and another alignment orientation which is 180° from the predetermined fiducial alignment orientation in the plane;

a fiducial alignment detector directed toward said component feed source and having an alignment signal output; and

a controller coupled to said detector alignment signal output and containing instructions which, when executed by said controller, cause said controller to compare a detected fiducial alignment orientation of the retrieved component with the predetermined fiducial alignment orientation to determine whether the retrieved component is in said predetermined fiducial alignment orientation.

64. (Thrice Amended) A component transfer apparatus for transferring a component having at least two sides that are substantially parallel to each other and that each have an equivalent number of leads protruding therefrom, said apparatus comprising:

D 4
a pick and place machine having a component feed source and a movable pick head having access to said component feed source, said moveable pick head supported to retrieve ~~said~~ a component from said component feed source and place the retrieved component in one of a plurality of alignment orientations including a predetermined fiducial alignment orientation in a plane and another alignment orientation which is 180° from the predetermined fiducial alignment orientation in the plane;

a fiducial alignment detector directed toward said component feed source and having an alignment signal output; and

a controller coupled to said detector alignment signal output and containing instructions which, when executed by said controller, cause said controller to compare a detected fiducial alignment orientation of the retrieved component with the predetermined fiducial alignment orientation to determine whether the retrieved component is in said predetermined

D4 fiducial alignment orientation , and cause said movable pick head to pick a component from said component feed source.

72. (Thrice Amended) A component transfer apparatus for transferring a component having at least two sides that are substantially parallel to each other and that each have an equivalent number of leads protruding therefrom, said apparatus comprising:

a pick and place machine having a component feed source and a movable pick head having access to said component feed source, said moveable pick head supported to retrieve a component from said component feed source and place the retrieved component in (one of a plurality of alignment orientations) including a predetermined fiducial alignment orientation in a plane and another alignment orientation which is 180° from the predetermined fiducial alignment orientation in the plane;

(a fiducial alignment detector) directed toward said component feed source and having (an alignment signal output); and

a controller coupled to (said detector alignment signal output) and containing instructions which, when executed by said controller, cause said controller to compare a detected fiducial alignment orientation of the retrieved component with the predetermined fiducial alignment orientation to determine whether the retrieved component is in (said predetermined fiducial alignment orientation and cause said controller to advance said component feed source.

Please cancel claims 74 and 75 without prejudice.

Please add claim 76:

--76. A component transfer apparatus for transferring a component having a first pair of sides that are substantially parallel to each other and that each have an equivalent number of leads protruding therefrom and a second pair of sides that are substantially parallel to each other and that each have an equivalent number of leads protruding therefrom, said apparatus comprising:

a pick and place machine including a controller connected to a movable pick head and a